

SEQUENCE LISTING



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Zhang, Min-Ying  
Norris, James

<120> Use of Human Homolog Of A Nuclear Migration Gene For Treatment And Diagnosis Of Cancer

<130> PSU-0016

<140> 09/623,568

<141> 2001-03-23

<150> 60/076,885

<151> 1998-03-05

<150> PCT US99/04996

<151> 1999-03-05

<160> 16

<170> PatentIn version 3.1

<210> 1

<211> 14

<212> PRT

<213> artificial Sequence

<220>

<223> Peptide

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Gly Cys Met Val Glu Lys Met Met Tyr Asp Gln Arg Gln Lys  
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ttctgttcgt ctgaagttgg cagc

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aaggatccaa gaaagttggg tggttgcagc tc 32

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gaaagtcgga ggttcgaaga 20

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accaactaag aacggccatg 20

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agcaacatgc cgtcgaaccg ctcc 24

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<210> 11  
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agcttgtgaa caccttcttc agcttccttc gacgcaaaac agactttttc attggaggag 180  
aagaagggat ggcagagaag cttatcacac agactttcag ccaccacaat cagctggcac 240  
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aaaaaaaaa aaaaaaaaaa a 1281

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20 25 30  
Phe Ser Phe Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu  
35 40 45

Gly Met Ala Glu Lys Leu Ile Thr Gln Thr Phe Ser His His Asn Gln  
 50 55 60

Leu Ala Gln Lys Thr Arg Arg Glu Lys Arg Ala Arg Gln Glu Ala Glu  
 65 70 75 80

Arg Arg Glu Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys  
 85 90 95

Ser Glu Thr Ser Gly Pro Gln Ile Lys Glu Leu Thr Asp Glu Glu Ala  
 100 105 110

Glu Arg Leu Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His  
 115 120 125

Glu Ala Gln Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp  
 130 135 140

Thr Glu Glu Asp Glu Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu Lys  
 145 150 155 160

Pro Asn Leu Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr Gln  
 165 170 175

Thr Leu Ser Glu Leu Asp Leu Ala Val Pro Phe Cys Val Asn Phe Arg  
 180 185 190

Leu Lys Gly Lys Asp Met Val Val Asp Ile Gln Arg Arg His Leu Arg  
 195 200 205

Val Gly Leu Lys Gly Gln Pro Ala Ile Ile Asp Gly Glu Leu Tyr Asn  
 210 215 220

Glu Val Lys Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys Val  
 225 230 235 240

Val Thr Val His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Ser Arg  
 245 250 255

Leu Val Ser Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro Glu  
 260 265 270

Asn Ser Lys Leu Ser Asp Leu Asp Ser Glu Thr Arg Ser Met Val Glu  
 275 280 285

Lys Met Met Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr Ser  
 290 295 300

Asp Glu Gln Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln His  
 305 310 315 320

Pro Glu Met Asp Phe Ser Lys Ala Lys Phe Asn  
 325 330

<210> 13  
 <211> 332  
 <212> PRT  
 <213> Rattus rattus

<400> 13

Met Gly Gly Glu Gln Glu Glu Arg Phe Asp Gly Met Leu Leu Ala  
 1 5 10 15

Met Ala Gln Gln His Glu Gly Gly Val Gln Glu Leu Val Asn Thr Phe  
 20 25 30

Phe Ser Phe Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu  
 35 40 45

Gly Met Ala Glu Lys Leu Ile Thr Gln Thr Phe Asn His His Asn Gln  
 50 55 60

Leu Ala Gln Lys Ala Arg Arg Glu Lys Arg Ala Arg Gln Glu Thr Glu  
 65 70 75 80

Arg Arg Glu Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys  
 85 90 95

Ala Glu Thr Pro Gly Pro Gln Ile Lys Glu Leu Thr Asp Glu Glu Ala  
 100 105 110

Glu Arg Leu Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His  
 115 120 125

Glu Val Gln Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp  
 130 135 140

Ala Glu Glu Glu Glu Asp Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu  
 145 150 155 160

Lys Pro Asn Leu Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr  
 165 170 175

Gln Thr Leu Ser Glu Leu Asp Leu Ala Val Pro Phe Arg Val Ser Phe  
 180 185 190

Arg Leu Lys Gly Lys Asp Val Val Val Asp Ile Gln Arg Arg His Leu  
 195 200 205

Arg Val Gly Leu Lys Gly Gln Ala Pro Val Ile Asp Gly Glu Leu Tyr  
 210 215 220

Asn Glu Val Lys Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys  
 225 230 235 240

Val Val Thr Val His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Asn  
 245 250 255

Arg Leu Val Thr Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro  
 260 265 270

Glu Asn Ser Lys Leu Ser Asp Leu Asp Ser Glu Thr Arg Ser Met Val  
 275 280 285

Glu Lys Met Met Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr  
 290 295 300

Ser Asp Glu Gln Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln  
 305 310 315 320

His Pro Glu Met Asp Phe Ser Lys Ala Lys Phe Asn  
 325 330

<210> 14  
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 <212> PRT  
 <213> Aspergillus nidulans

<400> 14

Met Ser Glu Gln Glu Pro Ser Ser Ala Asp Leu Ala Ala Arg Glu Ala  
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Glu Glu Lys Gln Arg Lys Ala Ala Glu Glu Ala Glu Gln Ala Thr Leu  
 20 25 30

Pro Tyr Lys Trp Thr Gln Thr Ile Arg Asp Val Asp Val Thr Ile Pro  
 35 40 45

Val Ser Ala Asn Leu Lys Gly Arg Asp Leu Asp Val Val Leu Lys Lys  
 50 55 60

Asp Ser Ile Lys Val Lys Val Lys Gly Glu Asn Gly Glu Val Phe Ile  
 65 70 75 80

Asp Gly Gln Phe Pro His Pro Ile Lys Pro Ser Glu Ser Ser Trp Thr  
 85 90 95

Leu Glu Thr Thr Ser Lys Pro Pro Gly Lys Glu Val Ser Ile His Leu  
 100 105 110

Asp Lys Val Asn Gln Met Glu Trp Trp Ala His Val Val Thr Thr Ala  
 115 120 125

Pro Lys Ile Asp Val Ser Lys Ile Thr Pro Glu Asn Ser Ser Leu Ser  
 130 135 140

Asp Leu Asp Gly Glu Thr Arg Ala Met Val Glu Lys Met Met Tyr Asp  
 145 150 155 160

Gln Arg Gln Lys Glu Met Gly Ala Pro Thr Ser Asp Glu Gln Arg Lys  
 165 170 175

Met Asp Ile Leu Lys Lys Phe Gln Lys Glu His Pro Glu Met Asp Phe  
 180 185 190

Ser Asn Ala Lys Ile Gly  
195

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<220>  
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Ser Phe Asp Glu Lys Glu Ala Leu Pro Tyr Asn Thr Gln Thr Asp Val  
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Leu Lys Gly Asp Val Val Lys Ile Asp Gly Lys Glu Ser Ser Trp Glu  
20 25 30

Gly Lys Val His Leu Lys Asn Met Glu Trp Trp Val Pro Ile Lys Ile  
35 40 45

Pro Glu Asn Ser Leu Ser Asp Leu Asp Glu Thr Arg Met Tyr Glu Lys  
50 55 60

Met Met Tyr Asp Gln Arg Gln Lys Met Gly Pro Thr Ser Asp Glu Gln  
65 70 75 80

Lys Ile Leu Lys Lys Phe His Phe Glu Met Asp Phe Ser  
85 90

<210> 16  
<211> 12  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (9)..(9)  
<223> X=Any Amino Acid

<220>  
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<222> (11)..(11)  
<223> X=Any Amino Acid

<400> 16

Met Val Glu Lys Met Met Tyr Asp Xaa Arg Xaa Lys  
1 5 10